

# 3F3A-90SA-4B14

## MECHANICAL DATA

|                         |                          |
|-------------------------|--------------------------|
| Noise at 50Hz           | 66 dB(A)                 |
| Moment of inertia       | 0.00241 kgm <sup>2</sup> |
| Bearing DE              | 6205ZZ                   |
| Bearing NDE             | 6203ZZ                   |
| Bearing lifetime        | 40000 h                  |
| Direction of rotation   | bidirectional            |
| Frame material          | aluminum                 |
| Colour                  | RAL 7030                 |
| Cooling method          | IC411                    |
| Ambient temperature     | -20 / +40 °C             |
| Altitude above sealevel | 1000 m                   |
| Output                  | 1.1kW                    |
| Speed                   | 1420 rpm                 |
| Ins. Class              | F                        |
| Efficiency              | 84,1% IE3                |
| Voltage                 | 400V                     |
| Connection              | Y                        |
| F.L. Current            | 2.48A                    |
| Power factor            | 0,76                     |
| Duty                    | S1                       |
| Frequency               | 50 Hz                    |
| IP                      | 55                       |
| Weight                  | 16 kg                    |

## SPECIAL DESIGN

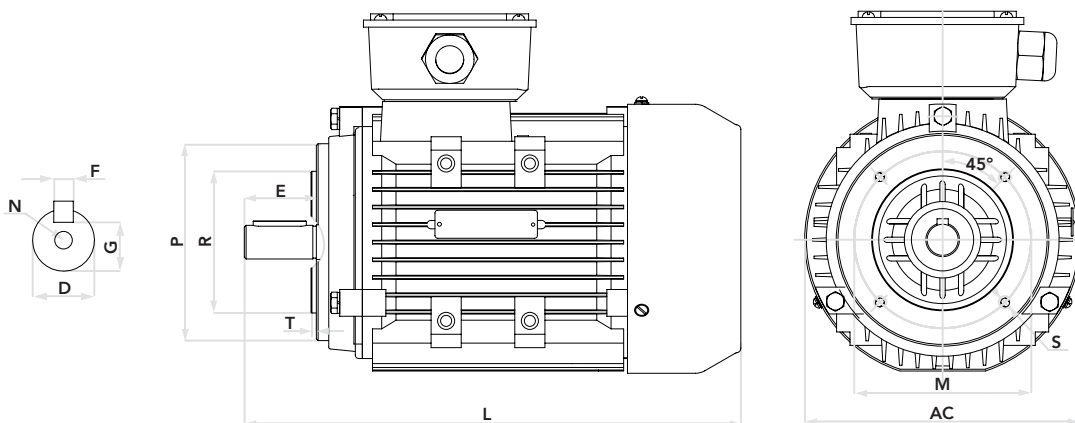
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## ELECTRICAL TEST DATA

|   |            |
|---|------------|
| Ambient temperature                                     | 24 °C      |
| Resistance of winding                                   | 9,238 Ω    |
| Three phase current unbalanced                          | 2,41 %     |
| No load amps  | 1,61 A     |
| No load input   | 95,54 W    |
| Core loss (Pfe)   | 37,78 W    |
| Windage friction loss (Pfw)                             | 12,75 W    |
| Stator winding loss (Pcu1)                              | 113,5 W    |
| Rotor winding loss (Pcu2)                               | 55,8 W     |
| Stray load loss (Ps)                                    | 10,4 W     |
| Locked rotor current                                    | 15,41 A    |
| Locked rotor current / Full load current                | 6,42       |
| Full load torque  | 7,4 Nm     |
| Locked rotor input power at full load                   | 8063,2 W   |
| Locked rotor torque                                     | 21,73 Nm   |
| Locked rotor torque / Full load torque                  | 2,94       |
| Full load input   | 1330,8 W   |
| Full load current                                       | 2,535 A    |
| Efficiency at 50% load                                  | 80,07 %    |
| Efficiency at 75% load                                  | 83,15 %    |
| Efficiency at 100% load                                 | 82,66 %    |
| Power factor at full load                               | 0,7576     |
| Full load slip  | 4,721 %    |
| Full load speed   | 1429 rpm   |
| Stator winding temperature rise                         | 38,55 K    |
| Stator phase resistance at Ambient temperature of 95 °C | 11,771 Ω   |
| Sound pressure level                                    | 57,2 dB(A) |
| Vibration   | 0,8 mm/s   |
| Insulation resistance                                   | 200 MΩ     |
| Bearing temperature                                     | 43,8 °C    |

Efficiency in compliance with IEC 60034-30 Edition 1.0 - 2008, IE3  
Testing method IEC 60034-2-1 Edition 1.0 - 2007-09

## DIMENSIONS 3F3A-90SA-4B14



| Frame size | Number of poles | D  | E  | F | G  | M   | R  | P   | S  | T   | AC  | L   | N  |
|------------|-----------------|----|----|---|----|-----|----|-----|----|-----|-----|-----|----|
| 90SA       | 04              | 24 | 50 | 8 | 20 | 115 | 95 | 140 | M8 | 3.0 | 195 | 350 | M8 |

FELSTROM

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